11 February 1986

MEMORANDUM FOR THE RECORD

SUBJECT: STS/OTI/COMSAT/FBIS Review Meeting on 6 February 1986

Attendees:	T. Chow	COMSAT
	H. Raag	COMSAT
	P. Singh	OTI
	T. Parish	STS
	D. Woodring	STS
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The meeting was held to establish compatibility between the three earth stations in the initial INTERNET configuration. At issue was compatibility of the various traffic signals specifically TV, wideband analogue, SCPC/FM, and the order wire. Listed below are the decisions reached by signal type.

TV

- OTI will direct STS to provide video receivers with 250 KHz tuning resolution
- OTI will direct STS to provide Scientific Atlanta 414 video receivers
- It was agreed that the French TV format would be dealt with as a special case.
- It was agreed that INTERNET would be designed to the SECAM, 6.0 MHz, 625 line format. Other formats having less stringent requirements will be passed by the network although it is not optimized for these.
- It was noted that in Panama and England the earth terminals will receive the TV video and audio as separate signals.
- It was agreed that system performance would be established just prior to the start of service by direct measurement. This would then be established as a baseline performance standard in lieu of CCITT standards.
- NTSC test equipment will be used in establishing TV performance baseline measurements.

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Wideband Analogue

- It was established that the bandwidth of the signal is 70 KHz extending from 60 KHz to 130 KHz
- It was agreed that Modulator/Demodulator to be used for this signal is a STS FDM unit with a bandwidth capability of approximately 0-156 KHz.
- OTI will direct STS to provide the 0-156 KHz FDM unit, mentioned above, in the Washington Terminal.
- OTI will provide FBIS with the cost delta, if any, to substitute the 0-156 KHz FDM unit in the Washington Station.
- FBIS has established that any link that maintains a base-band 35-40db S/N will be adequate for overall system performance.

FM/SCPC

- FBIS has decided to elect the COASTCOM option for the SCPC channels. These units incorporate frequency agility and energy dispersal.
- The COASTCOM units will give COMSAT maximum flexibility in obtaining an approved transmission plan from INTELSAT.
- OTI will provide FBIS with the detailed cost differential resulting from the selection of the COASTCOM FM/SCPC equipment.

Order Wire

- FBIS has developed a description of the order wire function which is attached.

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Attachment:
Description of the Order Wire

Distribution:
1 - COMSAT
1 - OTI
1 - STS (via OTI)
1 - Chrono File

INTERNET ORDER WIRE

It is expected that the INTERNET Order Wire (OW) will be used in the following manner. FBIS operation centers will have access to the OW as will the respective earth terminals. Only a single party can transmit at a time. Protocol will be such that the FBIS operation centers will communicate with each other to determine policy and overall transmission priorities. Following these determinations, network control will employ the OW to arrange the technical organization of the network in accordance with directions received from the FBIS Washington Center. Both the Washington operation center and the network control directions will be forwarded verbally and via hard copy TTY. The order wire will be capable of passing speech plus data. Following the reconfiguration of the network by the respective earth terminals, confirmation of the actions will be passed back through the network control facility to the Washington Ops Center, again by voice and hard copy TTY. Engineering services between various earth terminals will also be carried, as necessary, by the OW. In all cases, circuit discipline will be maintained by virtue of the fact that only a single party will be able to transmit at a time.